(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization**

International Bureau



(43) International Publication Date 29 December 2004 (29.12.2004)

PCT

(10) International Publication Number WO 2004/113026 A1

(51) International Patent Classification7: 13/50

B25B 13/48,

(21) International Application Number:

PCT/IL2004/000555

(22) International Filing Date: 22 June 2004 (22.06.2004)

(25) Filing Language:

(26) Publication Language:

English

(30) Priority Data:

156633

25 June 2003 (25.06.2003) IL

- (71) Applicant and
- (72) Inventor: MEKLER, Dan [IL/IL]; 6 Israel Eldad Street, 93399 Jerusalem (IL).
- (74) Agent: FREIMANN, Daniel; Daniel Freimann & Co., 5 Droyanov Street, 63143 Tel-Aviv (IL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

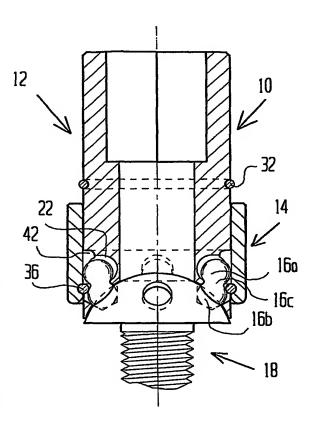
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A FASTENING TOOL FOR SCREW THREADED BOLTS



(57) Abstract: Provided according to the invention is a fastening tool (10) for tightening/untightening screw threaded fasteners such as bolts or nuts (18). The bolts (18) comprise a head formed with a series of at least three cavities (18a) deployed therearond. The fastening tool (10) comprises at least three peanut-shaped displaceable locking bodies (16) having spherical portion (16a; 16b), and a restricted neck portion (16c) therebetween. The cavities (18a) of the bolt (18) are configured to receive the spherical portions (16b). A seat member (12) is provided, formed with a series of at least three cavities (22) configured to receive the spherical portions (16a). Further provided is a manipulator (14) for rocking the locking bodies (16) about their neck portions (16c) from a non-operative position wherein the spherical portions (16a) are seated in the cavities (22), into an operative position wherein the spherical postions (16b) are seated in the bolt cavities (18a), and vice versa.